

ABSTRACT

An energy management device has a plurality of electromagnets positioned between a shaft and a seatbelt spool. When energized, the electromagnets move radially outwardly to engage the inside surface of a hub of the seatbelt spool. By adjusting the amount of current supplied to the electromagnets, the amount of friction, and thus the amount of energy dissipated, can be controlled. A D-ring can be supported on the cable which goes to a spool so that during a crash the ring moves forward as cable is pulled out of the spool which in turn is braked by the energy management device.